10/734,789



PATENT No. US 7,234,948 B2

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENTEE(S)

Duk-Yong Kim et al.

PATENT NO.

US 7,234,948 B2

**ISSUED** 

June 26, 2007

**FOR** 

DIRECTIONAL COUPLER INTEGRATED WITH

**CONNECTORS** 

#### Certificate of Mailing Under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA. 22313 on July 3, 2007.

Steve Cha, Reg. No. 44,069 (Name of Registered Rep.)

N.T

# REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 CFR 1.323

**Attention Certificate of Corrections Branch** 

Commissioner For Patents P.O. Box 1450 Alexandria, VA 22313-1450 Certificate

JUL 0 9 2007

of Correction

Dear Sir:

In accordance with the provisions of 37 CFR 1.323, the Patent and Trademark Office is respectfully requested to issue a Certificate of Correction in the above-identified Patent to correct an error in the <u>Assignee's address</u> on the face of the Patent (Item 73). The <u>Assignee's address</u> should read

07/05/2007 HDESTA1 00000024 7234948

-- Gyeonggi-do--

01 FC:1811

100.00 DP

as shown on the Assignment, copy enclosed.

TILL 1 0 2009

Patent No US 7,234,948 B2 Page 2

Please issue a Certificate of Correction and to place such Certificate in the file, so that such will appear on any copies of the Patent which are ordered in the future. Enclosed is a check in the amount of \$100.00 covering the fee for such correction.

Two (2) copies of Form PTO/SB/44 embodying the requested correction accompany this letter. Return of one copy of the Form duly certified is requested.

Respectfully submitted.

By: Steve Cha Attorney for Applicant Registration No. 44,069

Date: July 3, 2007

Enclosure: Copy of Assignment

Form PTO/SB/44

Mail all correspondence to: Steve S. Cha, Reg. No. 44,069 CHA & REITER, LLC 210 Route 4 East, Suite #103 Paramus, NJ 07652

Telephone: 201-226-9245

Fax: 201-226-9246

PTO/SB/44 (04-05)
Approved for use through 04/30/2007. OMB 0651-0033
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

	Page 1 of 1							
PATENT NO. : 7,234,948 B2	Page <u>1</u> of <u>1</u>							
APPLICATION NO.: 10/734,789								
ISSUE DATE : June 26, 2007								
INVENTOR(S) : Duk-Yong Kim et al.								
It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:								
Title Page Item [73], Assignee's address, should read as follows:								
Gyeonggi-do								

MAILING ADDRESS OF SENDER (Please do not use customer number below):

CHA & REITER, LLC 210 Route 4 East, Suite 103 Paramus, NJ 07652

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Approved for use through 04/30/2007. OMB 0651-0033
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. (Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

	Dana 1 of 1							
PATENT NO. : 7,234,948 B2	Page <u>1</u> of <u>1</u>							
APPLICATION NO.: 10/734,789								
ISSUE DATE : June 26, 2007								
INVENTOR(S) : Duk-Yong Kim et al.								
It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:								
Title Page Item [73], Assignee's address, should read as follows:								
Gyeonggi-do								
	•							
	ı							

MAILING ADDRESS OF SENDER (Please do not use customer number below):

CHA & REITER, LLC 210 Route 4 East, Suite 103 Paramus, NJ 07652

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



US007234948B2

## (12) United States Patent

Kim et al.

(10) Patent No.:

US 7,234,948 B2

(45) Date of Patent:

Jun. 26, 2007

## (54) DIRECTIONAL COUPLER INTEGRATED WITH CONNECTORS

(75) Inventors: Duk-Yong Kim, Hwaseong-si (KR);
Jong-Kyu Park, Osan-si (KR); Su-Hee
Lee, Yongin-si (KR); Sun-Woong
Park, Yongin-si (KR)

(73) Assignee: KMW Inc, Hwaseong-si [Gye] (KR)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 10/734,789

H01R 13/73

(22) Filed: Dec. 12, 2003

(65) **Prior Publication Data**US 2004/0127103 A1 Jul. 1, 2004

(30) Foreign Application Priority Data

Dec. 14, 2002 (KR) ...... 10-2002-0080030

(51) Int. Cl.

(2006.01)

See application file for complete search history.

## (56) References Cited

#### U.S. PATENT DOCUMENTS

3,798,574	Α		3/1974	Workman 333/10
3,989,333	Α	*	11/1976	Cauldwell 439/76.1
5,047,737	Α			Oldfield 333/22
5,382,932	Α		1/1995	Monti 333/245
5,607,325	Α	*	3/1997	Toma 439/578
5,675,300	Α	*	10/1997	Romerein 333/100
5,763,830	Α	*		Hsueh 174/60
5,926,076	Α		7/1999	Johnson et al 333/109
6,053,769				Kubota et al 439/578
				Machado 439/535
6,624,722	B2	*	9/2003	Wang et al 333/116

#### FOREIGN PATENT DOCUMENTS

JP 2003-032013

1/2003

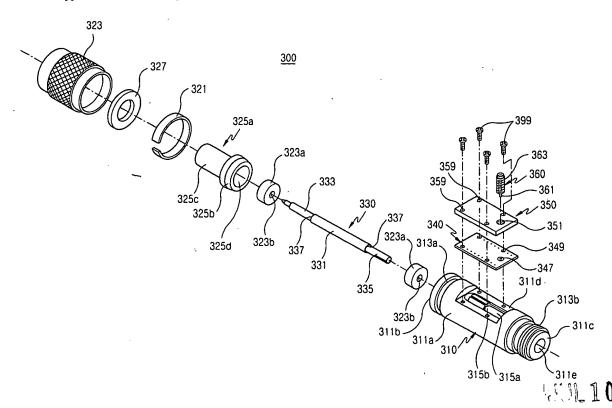
\* cited by examiner

Primary Examiner—Alexander Gilman (74) Attorney, Agent, or Firm—Cha & Reiter, L.L.C.

#### (57) ABSTRACT

A connectors-integrated directional coupler is provided. The directional coupler includes a housing having a body, an input connector integrally extended from one end of the body, and an output connector integrally extended from the other end of the body. A main line connects the input connector to the output connector for delivering a signal. A coupling line induces the signal from the main line.

#### 15 Claims, 6 Drawing Sheets





Docket No.: 5020-1-003

## **Assignment of Invention and Patent Application**



NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for and in consideration of TEN (\$10.00) DOLLAR,

- 1) Duk-Yong KIM of 65, Yeongcheon-ri, Dongtan-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea
- Jong-Kyu PARK of #104-1005, Dongbu 2-cha APT., Galgot-dong, Osan-si, Gyeonggi-do, Republic of Korea
- 3) Su-Hee LEE of #101-507, Shinmiju APT., 14-4, Singal-ri, Giheung-eup, Yongin-si, Gyeonggi-do, Republic of Korea
- 4) Sun-Woong PARK of 163-9, Unnam-ri, Guseong-myeon, Yongin-si, Gyeonggi-do, Republic of Korea

(hereinafter Assignor) hereby sells, assigns, transfers, and sets over unto:

KMW Inc. of 65, Yeongcheon-ri, Dongtan-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea

(hereinafter Assignee) the entire right, title and interest for the United States Of America as defined in 35 U.S.C.§ 1.00, in and to the invention entitled as:

### DIRECTIONAL COUPLER INTEGRATED WITH CONNECTORS

invented by Assignor; the application for United States patent therefor, invented by Assignor; any patent or reissues of any patent that may be granted thereon; and any applications which are continuations, continuation-in-part, substitutes, or divisions of said application. Assignor authorizes Assignee to enter the date of signature and/or Serial Number and Filing Date in the above. Assignor also authorizes and requests the Commissioner of Patents and Trademarks to issue any resulting patent(s) to the said Assignee, for its interests as Assignee, its successors, assigns and legal representatives. The undersigned agrees that the attorney of record in said application shall hereafter act on behalf of said Assignee; and Assignor further conveys to Assignee all priority rights resulting from the above-identified application for United States Patent. Assignor agrees to execute all papers, give any required testimony and perform other lawful acts, as deemed essential by Assignee to perfect Assignee's interest in any resulting patent of the United States, and to acquire, hold, enforce, convey, and uphold the validity of said patent and reissues and extensions thereof, and Assignee's interest therein.

connected therewith.

Address all correspondence to:

Steve S. Cha, Esq.

**CHA & REITER** 411 HACKENSACK AVE

9<sup>TH</sup> FLOOR

HACKENSACK, NEW JERSEY 07601

Address all telephone calls to:

(201)518-5518:

I (we) hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor:

Residence Address:

Post office address:

Duk-Yong KIM

65, Yeongcheon-ri, Dongtan-myeon, Hwaseong-si, Gyeonggi-do,

**CUSTOMER NUMBER** 

33942

Republic of Korea Same as above

Republic of Korea

Citizenship:

Date:

December 8, 2003

Signature:

Full name of Second inventor:

Residence Address:

Post office address:

Jong-Kyu PARK

#104-1005, Dongbu 2-cha APT., Galgot-dong, Osan-si, Gyeonggi-do,

Republic of Korea Same as above

Republic of Korea

Date:

Citizenship:

Signature:

Full name of Third inventor:

Residence Address:

Su-Hee LEE

#101-507, Shinmiju APT., 14-4, Singal-ri, Giheung-eup, Yongin-si,

Gyeonggi-do, Republic of Korea

Post office address:

Citizenship:

Same as above

Date:

Republic of Korea

Signature:

# Full name of Third inventor: Residence Address:

Post office address: Citizenship:

Date:

Signature:

Sun-Woong PARK 163-9, Unnam-ri, Guseong-myeon, Yongin-si, Gyeonggi-do,

Republic of Korea Same as above Republic of Korea

3